

# NOTRA at Tripoli Mid-Ohio

Steve Eves, Mark Coburn, Andrew Kleinhenz, Jim Seibyl, Casey Anthony and Chris Pearson made the trek down to Springfield on March 20<sup>th</sup> for a cool day of hot flights!



Mark Coburn (above) brought his Level 3 certification rocket down to Springfield for a test flight before the actual cert flight with an M motor. Opting for a three grain 75mm L1175 using NASSA K2 Fast propellant, the rocket had a perfect flight to 6200 feet. He had a Marco Polo tracker in it, but it wasn't even needed as it landed only about 500 feet from the parking area. Mark also flew his 4" "Endeavor" on an I295 sparky motor. The drogue deployed at apogee but there was no main parachute deployment at 500 feet. The altimeter failed in flight! Will be replacing with a new altimeter. Mark later flew his LOC/Precision "I-Roc" on a Research 54mm K700-ish motor using NASSA K2 Fast propellant to 4200 feet.



Brand new NOTRA member Rich Sharp posing with his Level 3 certification rocket, a Mad Cow DX-3 with 12" added to the payload section, which he called the "EZ-Eight" right before a perfect flight to 4500 feet and recovery with an AT M4500 Super Thunder motor. The all-fiberglass rocket was eight inches in diameter, 150 inches tall, and weighed 73 pounds with motor on the pad.

Below is a lift-off pic taken with a cell phone from very far away as Rick had to fly from the away cell.



We had certification fever last Saturday! At right is Casey Anderson's 4" LOC/Precision Black Brant 10 called "The Little Dude," which he flew two weeks ago with a K700 for a Level 2 certification attempt. He came back to try again only this time using an AT K1100 motor! The rocket hit 5000 feet for a successful L2 certification flight.

Below is a frame taken from the on-board video camera the moment of ignition.



Casey also flew his Mach 1 "Daedalus" with a 30 year old 24mm AT G55 motor and dual-deploy (you can't trust the delays on motors that old) for a great flight to 1700 feet.

Casey then flew an Estes "Star Orbiter" with an AT G40 motor, but the shock cord broke at apogee however both parts were recovered successfully.





Andrew Kleinhenz and his brother-in-law, Bill pose with his rocket affectionally named "Petunia," He flew it with another EX L1175, a motor which seemed to be very popular that day.

The rocket had a flight to 5800 feet and perfect recovery.

The winds that day were very strange as they were stronger on the ground than at altitude and blowing in a different direction.



Jim Seiby flew his LOC/Precision "T-LOC" (above left) on an AT H182 Red motor which flew to 2273 feet. He then flew a white Estes ProSeries "Argent" (above right) with which he was testing a prototype altimeter built by a friend. He flew it on an AT F67 which went to 1153 feet for a perfect deployment and recovery. Jim also flew a Green Madcow "Mantis" (not shown) on an AT I500 Blue motor to 610 feet.



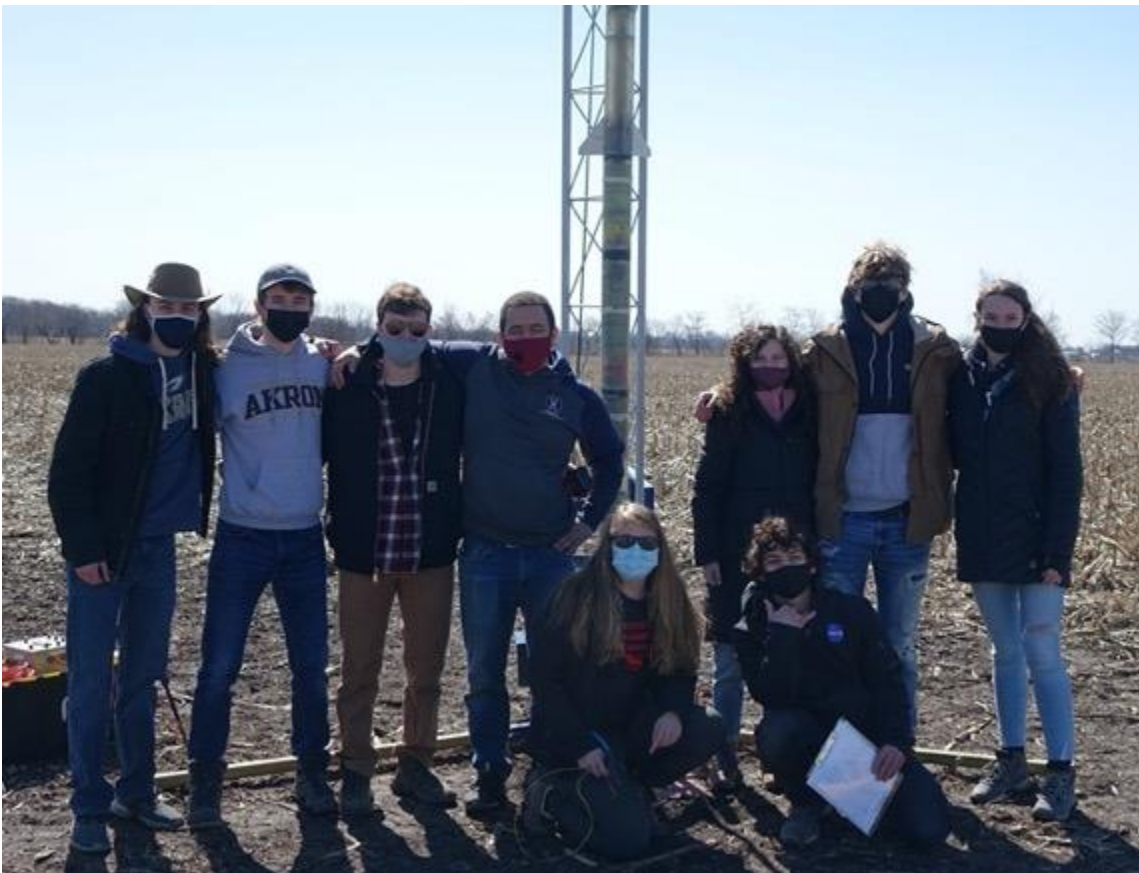
The University of Akron “Akronauts” returned to TMO with their sub-scale version of the rocket they would have flown at IREC at Spaceport America in New Mexico before the launch was cancelled. They were testing the avionics for the real rocket. Unfortunately, the same problem occurred as last time and there was no second-stage ignition. They are going to replace one of the timers and try again next week.



The launch gave the team the opportunity to try out their new launch pad custom built for them by Fade to Black Rocket Works. It turns out that the pads at IREC (which there is a copy of one which TMO uses at their away cell) isn't strong or long enough for the Akron teams 185 pound full-scale vehicle!



The two-stage rocket was powered by a CTI K1440 motor in the first stage, insuring plenty of power to get to staging altitude and a K250 on the sustainer.





I (Chris) finally got to fly my upscaled 5.5" Centuri Enerjet 2650 rocket at Tripoli Mid-Ohio this after waiting almost 2 years to do it. A broken wrist in 2019 and COVID in 2020 ended my plans to fly it those years. The 2650 is my favorite rocket and I have versions from 1.5" to 7.5" in diameter. It was loaded with 3-38mm J450 motors using NASSA K2 Fast propellant. It came out to about 2010 n-sec making it a high K motor. Ignition and lift-off were perfect and you can see all three motors burning. A second after the lift-off shot the rocket power shredded at 1350 feet! All the fins were torn off and one of the booster tubes was ripped off. Two of the motor cases exited the vehicle but were thankfully found with the assistance of several eagle-eyed spectators. The rest of rocket came down on its parachutes and was relatively undamaged. The booster section will have to be rebuilt with stronger fins.